14 Oct 2026 14:34:48 ET | 21 pages

US Semiconductor Equipment

SEMICON Day 1 Takeaways

CITI'S TAKE

We attended SEMICON Day 1 in San Francisco and recap key takeaways from our meetings with AMAT, AEIS, FORM, MKSI, NVMI, and VECO. Overall equipment makers sounded constructive on the WFE demand with the focus on ramping manufacturing capacity amidst component shortages in flow meters, optical components, and PCB boards.

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AMAT: CY30 Financial Targets — AMAT introduced new CY30 targets of 54% non-GAAP GM and 40% non-GAAP operating margin, representing ~400 bps of GM expansion and 200–300 bps of operating leverage from current levels. Management expects 200bps WFE share gains, and targets >$12B of services revenue, >$2B in its other businesses. AMAT reiterated its commitment to returning 80–100% of FCF to shareholders over time, while continuing to reinvest more than 50% of internally generated cash into the business.

AEIS: Data Center Competition — Unlike Delta's strategy of supplying turnkey power racks, AEIS focuses on power-conversion components and modules rather than complete rack systems. Management believes this approach allows AEIS to supply rack integrators and electrical equipment manufacturers without competing directly with its customers. Management sees its independent supplier model as a competitive advantage with customers developing proprietary rack architectures.

FORM: Teradyne Investment / Collaboration — FORM characterized TER's $300M investment as primarily a strategic commitment and important collaboration, rather than a change in the existing commercial relationship. The agreement formalizes longstanding collaboration and commits additional resources to executing critical technology roadmaps, particularly higher-speed HBM testing and silicon photonics/CPO, where TER is interested in FORM's optical probing capabilities.

MKSI: AI PCB — AI accelerates PCB and substrate complexity, with board size, layer count and line/space requirements increasing. Management cited ~80-layer optical-interconnect boards already entering data centers, versus customers discussing 80-layer designs as an extreme case roughly a year ago.

NVMI: CY27 WFE / Growth Outlook — Spending mix remains an important driver of relative growth, with CY26 skewed toward 3nm rather than more metrology-intensive GAA investments, and DRAM has lower process control intensity vs F/L. NVMI expects a higher GAA mix in CY27, supporting improved metrology intensity.

VECO: Photonics / InP Lasers — VECO highlighted strong momentum in InP laser manufacturing, with >$250M of disclosed photonics orders, primarily from leading Western customers.

See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations.

SEMICON Day 1 Takeaways

Applied Materials

Investor Breakfast

- **CY30 Financial Targets** — AMAT introduced new CY30 targets of 54% non-GAAP GM and 40% non-GAAP operating margin, representing ~400 bps of GM expansion and 200–300 bps of operating leverage from current levels. Management expects 200bps WFE share gains, and targets >$12B of services revenue, >$2B in its other businesses. AMAT reiterated its commitment to returning 80–100% of FCF to shareholders over time, while continuing to reinvest more than 50% of internally generated cash into the business.

- **WFE / Share Gains** — AMAT expects to outperform WFE and gain >200 bps of overall WFE share by CY30, supported by its exposure to leading-edge F/L, DRAM and advanced packaging, which management estimates will account for ~75% of incremental WFE spending through the forecast period.

- **AI / Agentic Workloads** — Management highlighted a shift toward more CPU-intensive architectures with agentic AI. AMAT estimates that an agentic AI factory pod could consume ~2–4x more wafers than a generative AI pod, depending on configuration, with ~85% of wafer demand concentrated in leading-edge F/L, DRAM and advanced packaging. Management also expects CPUs, GPUs, ASICs and networking chips to migrate more rapidly toward leading-edge nodes, where AMAT has higher share.

- **Leading-Edge Logic** — AMAT expects its logic SAM to increase from ~$12B at 3nm to ~$15B at 1.4nm, with ~300 bps of share gains in its served market. Growth is driven by GAA, backside power and greater wiring complexity. Management highlighted new co-optimized transistor-contact solutions delivering ~5% performance improvement, with >$2B of cumulative revenue expected through CY30.

- **DRAM** — AMAT expects its DRAM SAM to increase >40% from $6F^2$ to $4F^2$, with further upside from 3D DRAM, and targets ~500 bps of share gains across these transitions. Growth is supported by increased adoption of logic-like transistor technologies and more complex wiring, with wiring layers more than doubling from conventional DRAM to HBM DRAM.

- **Advanced Packaging** — AMAT now expects advanced-packaging revenue to exceed $5B within the next few years (>$2.4B in CY26). HBM revenue should exceed $1B in CY26, with >60% share of its served market. Management expects hybrid bonding to roughly double its SAM versus conventional microbump/TSV approaches, with AMAT addressing ~80% of process steps across pre-bonding, bonding and post-bonding. Panel-level packaging represents another growth opportunity.

- **Metrology & Inspection** — AMAT expects optical inspection and eBeam revenue to each grow >50% y/y in CY26, with the broader M&I business generating >$3B in systems and services revenue and management expecting [illegible] growth. AMAT currently serves ~$2B of the ~$9B optical insp[illegible] plans new product introductions to address the remaining ~$[illegible] advanced packaging, customers are increasingly willing to pa[illegible] inspection solutions that improve yield, supporting opportun[illegible] differentiated products.

- **eBeam / Materials Metrology** — AMAT highlighted its ~$2B e[illegible] approximately 2x its nearest competitor, with expanding app[illegible]



transistor, interconnect and CMP inspection. Management also introduced an emerging inline, nondestructive materials-metrology opportunity for measuring film thickness and composition directly on devices, estimating a several-hundred-million-dollar TAM with no meaningful revenue contribution today.

- **Services / AIx** — AMAT expects its long-term AGS growth model to mid-teens CAGR, following >20% revenue growth in CY26, targeting >$12B of revenue by CY30. Its AIx platform currently connects ~37K chambers, with a target of >90K by CY30, while subscription penetration is expected to increase from the low-40% range historically to nearly 70%. Management expects ~20% revenue-per-tool growth between CY25 and CY30, supported by higher-value AI-enabled services. AIx has demonstrated ~30% faster service resolution, while newer applications include predictive maintenance and automated tool matching. Service contracts average >2.5 years, with renewal rates above 90%.

- **Capacity / Supply Chain** — AMAT is investing to more than double both manufacturing and laboratory capacity over its planning horizon, supported by new facilities and expansions across the US, Singapore and other regions. Management identified cleanroom availability as the primary near-term constraint on WFE growth, with detailed eight-quarter capacity forecasts from major customers. CapEx is ~8% of revenue in CY26 and is expected to decline as a percentage of revenue over time.

- **China / Market Share** — Management attributed much of AMAT's recent reported WFE share pressure to expanding export restrictions, noting that its accessible portion of China's WFE market declined from approximately 90% to 70% in CY25, versus essentially full access earlier in the decade. AMAT maintained that its share has increased when excluding inaccessible markets and reiterated strong positioning in permitted applications, including 28nm. The >200 bp CY30 WFE share-gain target assumes no relaxation of current export restrictions.

- **HBM De-Speccing** — Management expects DRAM supply to remain constrained despite potential HBM de-speccing, arguing that system designers are optimizing memory configurations for different AI workloads rather than broadly reducing memory requirements. Training workloads continue to demand higher HBM stack heights, while inference and agentic applications may require different memory configurations. Management views these emerging workloads as incremental rather than cannibalizing existing demand.

- **ICAPS / Power & Photonics** — AMAT expects >$1B of CY26 revenue from power and photonics applications within ICAPS, supported by AI data-center infrastructure. Management also highlighted improving ICAPS utilization following several years of digestion, with incremental opportunities from 28nm technology transitions. Longer term, physical AI could provide an additional growth driver.

- **EPIC / R&D Strategy** — AMAT's new EPIC Center aims to accelerate customer innovation cycles by ~2x through parallel development across materials, devices and advanced packaging. Management expects earlier product design-ins, faster commercialization and improved visibility into future technology roadmaps, supporting R&D efficiency and long-term share gains.

- **Other Businesses** — AMAT maintained a near-term revenue run rate of approximately $400M per quarter across its Display and emerging photonics businesses, while targeting >$2B of combined annual revenue by CY30. Growth

opportunities include MAX OLED, designed to enable larger OLED displays without fine metal masks, and SENZ optical waveguides for AI glasses. Management cautioned against modeling material incremental revenue until these technologies progress further toward high-volume adoption.

Investor Meeting

We hosted the investor meeting with Keith Wells, GVP, Imaging and Process Control Group; Bala Haran, VP, Integrated Materials Solutions; Vincent Di Caprio, VP, Technology and Bus Dev, Advanced Packaging; Mike Sullivan, Corporate VP, Investor Relations; Marty Parker, Senior Director, Investor Relations

- **Optical Inspection / Share Gains —** Management attributed optical inspection share gains to lower cost of ownership at comparable sensitivity, alongside customer demand for alternative suppliers. Optical-component supply remains somewhat constrained, but AMAT believes its proactive supply-chain planning has mitigated the impact, supporting ~50% revenue growth in CY26.

- **Optical Inspection / SAM Expansion** — AMAT currently addresses ~$2B of the ~$9B optical inspection market, with ~$2B of incremental opportunity in yield-critical inspection and >$1B in advanced packaging. Management is developing differentiated products for these segments, supported by strong customer demand for alternatives to incumbents.

- **eBeam / Inline Adoption —** Management expects eBeam adoption to expand from R&D into near-line and inline inspection, with a new product under development. AMAT sees opportunities for greater tool intensity as adoption scales with wafer starts, particularly as increasingly complex 3D structures require high-resolution inspection beyond optical capabilities.

- **X-ray —** AMAT sees expanding opportunities in materials characterization and advanced packaging, supported by its Sigray acquisition. Key applications include inspection of buried interconnects in HBM, TSVs and hybrid bonding, where conventional optical techniques are limited.

- **Digital Lithography —** AMAT's maskless digital lithography platform supports large panels and real-time distortion correction. The technology is deployed at 16 R&D sites, with two customers moving toward HVM, and management sees potential for a several-hundred-million-dollar annual revenue opportunity beginning CY28 and beyond.

- **HBM De-Speccing** — Management views HBM de-speccing as workload-specific optimization rather than demand destruction. Training continues to require higher-capacity HBM, while inference applications may favor lower stack heights with greater bandwidth. Management expects growing logic and interconnect intensity, including increased base-die content, to support AMAT's opportunity.

- **Hybrid Bonding** — Management emphasized that hybrid bonding adoption is driven by I/O density, bandwidth, latency and power requirements rather than stack height alone. Higher interconnect density could accelerate adoption even in lower-stack-count HBM, while AMAT remains positioned across both conventional and hybrid bonding processes.

- **CY30 Target Upside –** When asked about potential upside to CY30 target, Management identified increasing logic transistor intensity in DRAM and advanced substrate manufacturing as two key potential sources of upside to its

CY30 targets. In DRAM, custom HBM and inference-oriented architectures could increase transistor content per bit, while the transition toward bonding DRAM arrays to separate logic wafers removes certain process and thermal constraints, enabling more advanced logic technologies and expanding AMAT's SAM. In advanced packaging, management sees significant opportunities from bringing semiconductor-grade manufacturing technologies into substrate production, driven by larger package sizes, tighter interconnect requirements and increasing complexity. This includes panel-level processing and longer-term glass substrate adoption, particularly for CPO applications, with management viewing glass as a 3–5+ year opportunity.

Advanced Energy

We hosted the investor meeting with Steve Kelley, President and CEO; Paul Oldham, EVP and CFO; Edwin Mok, VP Strategic Marketing and IR; Andrew Huang, VP of IR

- **Semi** — AEIS expects meaningful conductor etch share gains beginning CY27, supported by new technologies introduced in CY23 and subsequent design wins. The opportunity is primarily at sub-2nm nodes, with some potential spillover at 2nm. Management expects dielectric etch share gains to become more meaningful in CY28/29, representing a larger incremental opportunity given AEIS's current LSD share versus a majority position in conductor etch. In deposition, where AEIS historically holds roughly 1/3 share, there are also design programs underway.

- **Semi / Testing & System Power —** AEIS is seeing increased adoption of its power solutions in AI chip testing and burn-in, as higher-power devices require more capable power instrumentation within testers. The company supplies major ATE vendors, with new design wins spanning wafer-level and chip-level testing.

- **Data Center** — AEIS selectively engages with a limited number of hyperscalers, prioritizing engineering resources and early participation in complex power architectures to secure sole-source or preferred dual-source positions. Management expects second-wave customers to become a meaningful contributor in CY27, including neocloud, and also some traditional T&N customers. These customers generally require more standardized solutions with limited customization, allowing AEIS to expand its customer base without proportionately increasing engineering resources. Management cautioned that second-wave demand forecasts may be more ambitious and less predictable than those of established hyperscalers.

- **800VDC** —Management expects greater dollar content opportunities from the transition to 800VDC, driven by higher power requirements and increased system complexity, with opportunities across both power sidecars and IT racks. AEIS emphasized that AC/DC power conversion remains necessary regardless of whether customers adopt sidecars, centralized power architectures or other configurations, positioning the company to supply power-conversion components across different architectures. Management also expects higher power requirements with each successive generation to support increasing dollar content and improving gross margins, reflecting the greater value of its power solutions.

- **Data Center Competition** — Unlike Delta's strategy of supplying turnkey power racks, AEIS focuses on power-conversion components and modules rather than complete rack systems. Management believes this approach allows AEIS to supply rack integrators and electrical equipment manufacturers without competing directly with its customers. Management sees its independent supplier model as a competitive advantage with customers developing proprietary rack architectures.

- **Capacity Expansion** — AEIS's new 500,000-square-foot Thailand factory is expected to begin generating revenue in 4Q26, with a meaningful ramp in CY27. The facility will provide approximately $2B of annual revenue capacity, bringing AEIS's total manufacturing capacity to >$5B by end of CY28. The factory supports both semiconductor and data-center demand, with production lines added incrementally alongside customer volumes. Management expects the phased ramp to limit near-term fixed-cost absorption pressure, with the investment already incorporated into its margin targets.

- **Supply Chain** — Management acknowledged tightening availability across certain components but said supply constraints have not limited AEIS's growth to date. Following lessons learned during COVID, AEIS has increased strategic inventory, primarily piece parts, while expanding second-source relationships and working more closely with key suppliers. Management believes these measures, alongside additional manufacturing capacity, should help mitigate potential bottlenecks as demand continues to increase.

- **Gross Margin Outlook** — AEIS reiterated its expectation to reach approximately 43% GM exiting CY27, significantly ahead of its original 2030 target. Management sees additional upside beyond 43%, supported by higher-value product introductions, favorable mix, improved manufacturing efficiency and operating leverage. The Thailand ramp is already contemplated in the outlook, with management expecting the factory to support the progression from approximately 42% to 43% GM rather than creating a significant near-term headwind.

- **Data Center GM** — Data-center GM has improved substantially from low-teens historically to approximately 40% currently, approaching the corporate average but remaining below Semis and I&M margins. Management expects further improvement as successive generations deliver higher power density, efficiency and value-added content. While data-center GM may not reach semiconductor levels, management sees continued opportunities for mix-driven margin expansion.

- **Pricing** — AEIS distinguishes between value-based pricing on new products and inflation pass-through on existing products. New products command higher ASPs and margins as customers pay for improved performance, power density and efficiency. For legacy products, AEIS is passing through higher supplier costs with transparent cost justification, primarily to preserve existing margins rather than capture incremental pricing upside. Management emphasized the importance of maintaining long-term customer relationships and securing future design wins.

- **Industrial & Medical** — I&M demand remains strong, supported by design wins secured over the past several years entering production. Management said demand currently exceeds its ability to fulfill orders, with most of the excess backlog expected to be addressed in 4Q26 and some extending into 1Q27. Approximately half of the business flows through distribution, providing

monthly visibility into inventory, sell-through and order trends. Management expects continued strength in CY27, supported by its focus on higher-value products rather than commoditized applications.

FormFactor

We hosted the investor meeting with Mike Slessor, CEO; Aric McKinnis, CFO; Stan Finkelstein, VP IR

- **Teradyne Investment / Collaboration** — FORM characterized TER's $300M investment as primarily a strategic commitment and important collaboration, rather than a change in the existing commercial relationship. The agreement formalizes longstanding collaboration and commits additional resources to executing critical technology roadmaps, particularly higher-speed HBM testing and silicon photonics/CPO, where TER is interested in FORM's optical probing capabilities. The partnership remains nonexclusive and still commits to an open ecosystem. Importantly, management viewed the investment as a strategic counterbalance to TER's earlier investment in peer, providing a clear signal to customers of TER's long-term commitment to FORM.

- **CPO** — FORM is POR at insertion 1 (PIC wafer test), while management sees significant technical and economic challenges at insertion 2 (bonded PIC/EIC wafer), given simultaneous optical/electrical probing, long test times and equipment footprint. On insertion 3, FORM's optical-probing opportunity is dependent on testing before optical couplers are attached. The split between insertion 1&2 of the previously outlined ~$400M CY30 TAM is highly dependent on the eventual test architecture.

- **NVIDIA / AMD Share Gains** — FORM has qualified for NVIDIA GPU testing and shipped multiple probe cards in 3Q26, currently undergoing pilot production at TSMC. Management expects to compete for Rubin Ultra, while Feynman represents a potentially larger opportunity as probing transitions from aluminum to copper, allowing FORM to compete from the beginning of the qualification cycle. FORM is also qualified for AMD GPU and CPU applications, with initial design wins, although meaningful share gains depend on additional Farmers Branch capacity around mid-CY27.

- **Custom ASICs** — The transition from conventional probe cards toward advanced MEMS for custom ASICs is beginning, with Google TPU v9 currently in engineering quantities and potentially reaching HVM around mid-CY27. Management expects the timing to align with Farmers Branch capacity additions.

- **HBM De-spec** — HBM probe-card revenue increased ~70% y/y in 1H26, supported by HBM4 and additional demand from Micron. Management expects another seasonal ramp in late CY26/early CY27 with the next generation. On de-speccing, the impact depends on whether lower stack heights reduce total memory bits or are offset by more HBM units. Lower HBM content per GPU could affect demand, although additional networking content and more units provide offset. Management sees the underlying requirement for more and faster memory as unchanged, and even with de-speccing, FORM still has the advantage in parallel and high speed testing.

- **HBM / DDR5 Mix** — FORM expects DRAM probe-card revenue to remain near record levels in 3Q26 despite a meaningful mix shift from HBM to DDR, as

memory manufacturers allocate more wafer starts to conventional DRAM. HBM carries higher GM than DDR5, although the margin gap has narrowed following manufacturing improvements.

- **HBM base dies** — Increasing logic content in HBM base dies raises pad density, potentially driving adoption of MEMS vertical probe cards over cantilever solutions. FORM believes its capabilities in both logic and DRAM, particularly speed, parallelism and power delivery, position it to participate. Management also highlighted the possibility of separate logic and memory test insertions, as hyperscalers may be reluctant to transfer proprietary logic-test protocols to memory manufacturers, and vice versa.

- **Pricing** — Management sees some pricing flexibility in the current capacity-constrained environment but continues to prioritize value-based pricing and long-term customer relationships rather than broad increases. That said, FORM explicitly stated that none of the ~1,500 bps of GM improvement over the last year came from pricing. Management does not view pricing as a major margin-improvement driver.

- **CPU / Customer Diversification** — FORM cited increased CPU activity across Intel, AMD and NVIDIA, including renewed demand for certain older Intel CPU designs. For NVIDIA, TSMC places GPU probe-card orders, NVIDIA places networking orders, while Vera CPU orders are split between the two. Management emphasized that both the fabless customer and foundry participate in supplier selection regardless of which company places the PO.

- **NPO / CPO / Pluggables** — FORM's PIC wafer-level optical testing in insertion 1 is largely architecture-agnostic between CPO and NPO, with the same optical-probing technology applicable to both. Management typically cannot determine the final architecture when shipping probe cards. Pluggables remain a relatively small business for FORM, with photonics growth primarily driven by existing wafer-fab customers incorporating optical processes into their manufacturing flows.

MKSI

We hosted the investor meeting with John Lee, CEO; Paretosh Misra, VP IR

- **AI PCB** — AI accelerates PCB and substrate complexity, with board size, layer count and line/space requirements increasing. Management cited ~80-layer optical-interconnect boards already entering data centers, versus customers discussing 80-layer designs as an extreme case roughly a year ago. MKS's chemistry-equipment business is booked through CY27 and discussing CY28 slots, supporting the decision to roughly double its Guangzhou equipment footprint. AI drives both front-end WFE and advanced packaging/PCB demand, giving MKS exposure to both areas.

- **Chemistry** —Within chemistry, AI-related revenue increased from ~5% two years ago to ~10% last year and ~15–17% on average this year, with management expecting it to exit CY26 around 20% and continue increasing in CY27. Non-AI chemistry remains more mixed, with smartphones/PC weaker and auto/industrial roughly flat.

- **Equipment-to-Chemistry Pull-Through** — There is typically a ~20–30 month lag between an equipment booking and full chemistry volume, including ~6–9

months to build the tool followed by shipment, qualification and customer production ramps. Chemistry growth today therefore reflects both equipment shipped several years ago and improving utilization of existing capacity, while current equipment bookings should support future consumables growth.

- **Semi Outgrowth** — MKS previously guided Q3 semi revenue to grow roughly 50% y/y, with vacuum growing faster than that, versus roughly mid-30s to ~40% growth at major OEM customers. Management said Q3 is the first quarter this cycle where MKS is outshipping its OEMs customers, after supply-chain ramping limited its ability to do so during 1H26. The outgrowth is broad across the vacuum and power portfolio rather than attributable to one product.

- **Capacity** — MKS is planning its manufacturing footprint around ~$250B WFE by early CY28, plus 25% temporary surge capacity, which management said could be sustained for approximately two quarters. The company is also already deciding where to locate an additional factory that would support a $300B+ WFE environment by the end of CY28.

- **Gross Margin** — Mix remains an important driver of GM. VSD has lower GM but high operating-margin flow-through, while chemistry equipment is below corporate GM but creates recurring chemistry demand; standalone chemistry GM remains around 55%. Penang startup and other footprint investments represent roughly 50–80 bps of near-term cost, with Penang expected to become a benefit as utilization increases toward late CY27. Management reiterated approximately 40% incremental operating margin on average through the cycle, with upcycle to be slightly higher than that.

- **Pricing** — VSD GM was 43.5% last quarter versus a historical peak around 46%, with management attributing the difference to the absence of higher-margin China revenue and NAND power mix. Management said it is working on pricing and believes the current environment provides room to be more aggressive, given customers are also realizing stronger pricing. Volume should provide an additional benefit.

- **Supply Constraints** — Management is hearing about constraints in components including MFCs and laser drilling systems. MKS said maintaining sufficient internal and supplier capacity could create opportunities to capture incremental business when peers are unable to deliver.

- **Semi Share / RF Power** — Management said MKS has held its share ex-China, with the primary historical share reduction coming from China export restrictions. On high-aspect-ratio RF power, management said it is not concerned about competitive share-loss claims and described MKS as having effectively 100% share in the relevant application today.

- **Glass Substrates** — MKS has worked on glass-substrate applications for roughly a decade and expects to participate through selected chemistry processes if adoption increases. Management noted, however, that glass represents only one layer within a much larger package/board stack.

Nova

We hosted the investor meeting with Gaby Waisman, CEO, and Guy Kizner, CFO

- **CY27 WFE / Growth Outlook** — NVMI continues to target growth at least in line with WFE, with the objective of outperforming, although management acknowledged that achieving outperformance becomes more challenging as WFE expectations rise. Spending mix remains an important driver of relative growth, with CY26 skewed toward 3nm rather than more metrology-intensive GAA investments, and DRAM has lower process control intensity vs F/L. NVMI expects a higher GAA mix in CY27, supporting improved metrology intensity.

- **GAA** — GAA adoption remains in its early stages, with more customers expected to transition in CY27. The move toward A14 should bring further incremental intensity, although management does not expect volume manufacturing in CY27. Longer term, CFET adoption around CY31/32 could drive another step function in metrology intensity and require new generations of tools beyond existing GAA solutions.

- **Advanced Packaging** — Advanced packaging is approaching ~25% of NVMI revenue, growing at a strong double-digit rate. Management sees opportunities across HBM, CoWoS and EMIB, with no meaningful difference in its positioning across these architectures. The WMC platform is gaining share through expansion into new customers, geographic markets and applications, with configurable sensors supporting additional content and pricing. NVMI is also seeing initial XPS adoption in advanced packaging and increasing integrated-metrology attachment.

- **OSAT / Panel-Level Packaging** — NVMI is seeing more packaging activity shift toward OSATs adopting tool PORs recommended by foundries, creating incremental opportunities as customers expand capacity. Panel-level packaging represents another potential share-gain opportunity, as some competitors may lack the resources to develop tools for the transition. Management expects advanced-packaging industry growth to moderate in CY27 versus CY26 but sees opportunities to outperform through additional penetration.

- **Material Metrology** — Management views AMAT's entry into material metrology as a longer-term competitive risk rather than an immediate threat. The XPS/SIMS/Raman market is several hundred million dollars, and NVMI believes a second supplier would need meaningful performance or cost-of-ownership advantages to justify customer qualification. Management acknowledged that sole-source positions are unlikely to persist indefinitely but expects AMAT to require time to develop competitive inline solutions. NVMI plans to continue investing in differentiation, **throughput and cost of ownership.**

- **OCD / Integrated Metrology/ Chemistry Metrology** — NVMI highlighted spectral interferometry as a key differentiator in OCD, enabling measurements that management believes competitors cannot currently replicate. The company also plans to expand integrated on-board metrology content, combining additional sensors with AI-powered modeling and analytics. In chemical metrology, NVMI is gaining share in front-end copper electroplating applications and developing reagent-free measurement techniques to improve sampling speed and efficiency.

- **Gross Margin / Pricing** — Management did not indicate an expectation for a structural GM step-up, noting that higher ASPs and value-based pricing must be balanced against rising manufacturing costs and continued R&D and infrastructure investments. NVMI expects to provide more detail on its margin outlook at Investor Day.

Veeco

We hosted an investor meeting with Bill Miller, CEO; John Kiernan, CFO; Anthony Pappone, VP FP&A and IR; Alex Delacroix, Director, IR

- **ACLS Merger** — Management characterized the regulatory review of the VECO/ACLS combination as business as usual, with ongoing weekly engagement with China's SAMR and additional market-information requests. Advisors had identified no regulatory red flags, and management maintained its previously communicated expectation for a 2H26 close. Discussions had not yet progressed to potential remedies or divestitures.

- **Advanced Packaging / OSATs** — Advanced packaging remains a key growth driver, with VECO expecting another step-up in CY27, supported by expanding demand across foundries, HBM manufacturers and increasingly OSATs. Management highlighted >$200M of advanced-packaging orders, with customers placing deposits alongside purchase orders and providing visibility into CY28 capacity requirements. The business has evolved from predominantly foundry-led demand toward broader OSAT adoption, with more than a year of visibility and potential for further growth in CY28. VECO is adding contract manufacturing capacity in the US and Southeast Asia to support the ramp.

- **Wet Processing** — VECO's wet-processing exposure spans flux cleaning, bumping and advanced packaging applications across CoWoS and HBM. Management noted that hybrid bonding is proving more challenging than initially expected, with conventional flux-based processes remaining more reliable in certain applications. Consequently, flux-removal steps are expected to remain in production longer than previously anticipated, supporting VECO's existing business. The company is also developing wet-processing solutions for future hybrid-bonding flows.

- **Photonics / InP Lasers** — VECO highlighted strong momentum in InP laser manufacturing, with >$250M of disclosed photonics orders, primarily from leading Western customers. VECO participates through three technologies: IBD for high-transparency laser facet coatings, MOCVD for InP epitaxy, and wet processing. Management highlighted share gains in MOCVD following the introduction of a higher-batch-capacity tool with improved cost of ownership. Increasing laser power and volumes should support greater deposition intensity, while more stringent thermal and reliability requirements favor IBD facet coatings. Current orders are not yet being driven by NPO/CPO, although management sees additional opportunities as optical architectures evolve.

- **NSA** — VECO's next-generation NSA has received customer sign-off and a follow-on order at a major logic manufacturer, with a 2nd leading logic customer evaluating the system and a 3rd having recently received a tool. Management sees opportunities at 18A and below, with development roadmaps extending toward A10. VECO continues to compete primarily with AMAT in laser annealing, while also targeting applications historically served by alternative techniques such as flash annealing as thermal budgets become more restrictive.

- **Laser Annealing in Memory** — VECO sees opportunities to expand laser annealing beyond its traditional logic exposure. One leading HBM/DRAM manufacturer adopted laser annealing several years ago, while a 2nd customer is evaluating the technology and VECO is engaged with a third. Management expects laser annealing could eventually become standard for at least one

process step in advanced DRAM, similar to its adoption in logic, with potential opportunities in NAND as well.

- **IBD 300 Front End** — VECO's IBD 300 is progressing through evaluations at two DRAM customers for low-resistance bit-line applications, with management citing favorable film-performance results and commercial discussions around future adoption. Customers are targeting pilot-line tools around mid-to-late CY27 and production in CY28. IBD offers lower-resistance films than conventional PVD, although integration has required additional optimization of downstream etch processes. Management highlighted opportunities to extend the use of tungsten before transitioning to molybdenum, with similar technology advantages applicable to ruthenium in logic.

- **HDD** — VECO maintains a strong incumbent position across all three major HDD head manufacturers, supplying ion beam deposition, ion beam etch and other deposition equipment used in read/write head manufacturing rather than recording media. Management expects CY27 HDD revenue to grow y/y, with roughly one year of visibility and discussions increasingly focused on CY28 requirements. Any industry capacity expansion or shifts in supplier market share could create incremental equipment demand in what has historically been a relatively efficient and stable manufacturing ecosystem.

- **GaN Power** — VECO continues to progress with a leading customer's 300mm GaN-on-silicon development program, targeting power applications in AI data centers, including 800V architectures. The customer is sampling devices manufactured using VECO equipment and expects to move toward pilot production in CY27, with a potential volume ramp in late CY27/CY28, more likely CY28. Management is prioritizing 300mm GaN rather than expanding its presence in 200mm GaN or SiC.

- **Packaging Lithography** — VECO's lithography business (legacy Ultratech) primarily serves larger-feature bumping applications in advanced packaging, rather than the finer line/space patterning required for more advanced interconnects. Management noted that its tools are limited to micron-scale line/space requirements and has made a strategic decision not to pursue the leading-edge lithography segment served by Canon, given the substantial R&D investment required. Growth is therefore primarily driven by increasing packaging volumes and capacity additions rather than higher lithography intensity, supported by VECO's established OSAT relationships, existing PORs and flexible tools that can serve multiple applications.

- **China** — China demand was primarily driven by laser annealing investments at 28nm/40nm mature-node fabs. Management does not intend to compete aggressively against domestic suppliers in wet processing or packaging lithography, where pricing would be less attractive. The company's disclosed >$250M photonics and >$200M packaging order pools are virtually entirely outside China, reducing its relative exposure to Chinese semiconductor spending.

Companies Mentioned:

Advanced Energy Industries, Inc (AEIS.O; US$275.65; 1; 13 Oct 26; 16:00) | Advanced Micro Devices (AMD.O; US$605.53; 1; 13 Oct 26; 16:00) | Applied Materials Inc (AMAT.O; US$464.24; 1; 13 Oct 26; 16:00) | Axcelis Technologies, Inc. (ACLS.O; US$124.88; Not Rated; 13 Oct 26; 16:00) | FormFactor Inc (FORM.O; US$128.09; 1; 13 Oct 26; 16:00) | Intel Corp (INTC.O; US$102.81; 1; 13 Oct 26; 16:00) | Micron Technology Inc (MU.O; US$953.19; 1; 13 Oct 26; 16:00) | MKS Inc (MKSI.O; US$247.56; 1; 13 Oct 26; 16:00) | Nova Ltd (NVMI.O; US$342.29; 2; 13 Oct 26; 16:00) | NVIDIA Corp (NVDA.O; US$228.52; 1; 13 Oct 26; 16:00) | Teradyne Inc (TER.O; US$380.29; 1; 13 Oct 26; 16:00) | Veeco Instruments (VECO.O; US$48.82; 1; 13 Oct 26; 16:00)